

R18-9-D304. 3.04 General Permit: Non-storm Water Impoundments at Mining Sites

- A. A 3.04 General Permit allows discharges to lined surface impoundments, lined secondary containment structures, and associated lined conveyance systems at mining sites.
 - 1. A discharge may include one or more of the following:
 - a. Seepage from tailing impoundments, unleached rock piles, or process areas;
 - b. Process solution temporarily stored for short periods of time due to process upsets or rainfall, provided the solution is promptly removed from the facility as required under subsection (D);
 - c. Storm water runoff not permitted under A.R.S. § 49-245.01 because the facility does not receive solely storm water or because the runoff is regulated under the Clean Water Act and is not considered storm water under the Act; and
 - d. Wash water specific to sand and gravel operations not covered by R18-9-B301(A).
 - 2. Facilities that continually contain process solution as a normal function of facility operations are not eligible for coverage under this general permit. If a normal process solution contains a pollutant regulated under A.R.S. § 49-243(I) this general permit does not apply if the pollutant will compromise the integrity of the liner.
- B. Notice of Intent to Discharge. In addition to the Notice of Intent to Discharge requirements specified in R18-9-A301(B), an applicant shall submit:
 - 1. A description of the sources of inflow to the facility. An applicant shall include a representative chemical analysis of expected sources of inflow to the facility unless a sample is not available, before facility construction, in which case the applicant shall provide a chemical analysis of solution present in the facility to the Department within 90 days after the solution first enters the facility;
 - 2. Documentation demonstrating that plans have been reviewed by a mining engineer or an Arizona-registered professional engineer before submission to the Department; and
 - 3. A contingency plan that specifies actions to be taken in case of an accidental release from the facility, overtopping of the impoundment or breach of the berm, and unauthorized inflows into the impoundment or containment structure.
- C. Design, construction, and installation requirements. An applicant shall:
 - 1. Design and construct the impoundment or secondary containment structure as specified under R18-9-D301(C)(1);
 - 2. Ensure that conveyance systems are capable of handling the peak flow from the 100-year storm;
 - 3. Construct the liner as specified in R18-9-D301(C)(4)(a);
 - 4. Develop and implement a Quality Assurance/Quality Control program that meets or exceeds the liner manufacturer's guidelines. The program shall address site and subgrade preparation, inspection procedures, field testing, laboratory testing, repair of seams during installation, and final inspection of the completed liner for functional integrity;
 - 5. If the facility is located in the 100-year flood plain, design the facility so it is protected from damage or flooding as a result of 100-year, 24-hour peak streamflows;
 - 6. Design and manage the facility so groundwater does not come into contact with the liner;
 - 7. Ensure that the facility accommodates any significant geologic hazard addressing static and seismic stability. The applicant shall document any design adjustments for this reason in the Notice of Intent to Discharge;
 - 8. Ensure that the site preparation includes, as appropriate, clearing the area of vegetation, grubbing, grading and embankment, and subgrade preparation. The applicant shall ensure that supporting surface slopes and foundation are stable and structurally sound;
 - 9. Ensure that the liner is anchored by being secured in an engineered anchor trench. If regularly exposed to sunlight, the applicant shall ensure that the liner is ultraviolet resistant; and
 - 10. Use compacted clay subgrade in areas with shallow groundwater conditions.
- D. Operational requirements. The permittee shall:
 - 1. Maintain the freeboard required in subsection (C)(1) through design, pumping, or both;
 - 2. Remove accumulated residues, sediments, debris, and vegetation to maintain the integrity and the liner to maintain design capacity;
 - 3. Document a visual inspection for cracks, tears, perforations and residual build-up at least monthly. The operator shall conduct an inspection after the facility receives significant volumes of storm water inflow;
 - 4. Report cracks, tears, and perforations in the liner to the Department, and repair them as soon as practical, but no later than 60 days under normal operating conditions, after discovery of the crack, tear, or perforation;

5. For facilities that temporarily contain a process solution due to process upsets, remove the process solution from the facility as soon as practical, but no later than 60 days after cessation of the upset;
 6. For facilities that temporarily contain a process solution due to rainfall, remove the process solution from the facility as soon as practical.
- E. Recordkeeping. A permittee shall maintain the following information for at least 10 years and make it available to the Department upon request:
1. Construction drawings and as-built drawings, if available;
 2. A log book or similar documentation to record inspection results, repair and maintenance activities, monitoring results and facility closure;
 3. Capacity design criteria;
 4. List of standard operating procedures;
 5. The Quality Assurance/Quality Control program required under subsection (C)(4); and
 6. Records of any unauthorized flows into the impoundment.
- F. Reporting requirements.
1. If the liner is breached, as evidenced by a drop in water level not attributable to evaporation, or if the impoundment breaches or is overtopped due to a catastrophic or other significant event, the permittee shall report the circumstance to the Department within five days of discovery and implement the contingency plan required in subsection (B)(3). The permittee shall submit a final report to the Department within 60 days of the event summarizing the circumstances of the problem and corrective actions taken.
 2. The permittee shall report unauthorized flows into the impoundment to the Department within five days of discovery and implement the contingency plan required in subsection (B)(3).
- G. Closure requirements. The permittee shall notify the Department of the intent to close the facility permanently. Within 90 days following closure notification the permittee shall comply with the following requirements, as applicable:
1. Remove any solid residue on the liner material and dispose of it appropriately;
 2. Inspect the liner material for evidence of holes, tears, or defective seams that could have leaked;
 3. If evidence of leakage is discovered, remove the liner in the area of suspected leakage and sample potentially impacted soil. If soil remediation levels are exceeded, the permittee shall, within 60 days notify the Department and submit an action plan for the Department's approval before implementing the plan.
 4. If there is no evidence of holes, tears, or defective seams that could have leaked:
 - a. Cover the liner in place or remove it for disposal or reuse if the impoundment is an excavated impoundment,
 - b. Remove and dispose of the liner elsewhere if the impoundment is bermed, and
 - c. Grade the facility to prevent the impoundment of water.
 5. Notify the Department within 60 days following closure that the action plan has been implemented and the closure is complete.

Historical Note

New Section adopted by final rulemaking at 7 A.A.R. 235, effective January 1, 2001 (Supp. 00-4).